

Summary

- Dipole tilt and external pressure dominate boundary configuration.
- IMF effects are minor but discernable with tilt/pressure correction.
- SM coordinates best order the angular position of cusp samples.
- GSM coordinates best order in radial distance and for external flow.
- Cusp indentation becomes enlarged as dipole tilts more towards oncoming sheath flow; as dipole tilts away from sun direction, indentation goes away and outer boundary takes on same shape as observed at low latitude.
- Quantitative magnetopause model accounting for tilt/pressure/Bz.
- Online high-latitude boundary data base (<http://nssdc.gsfc.nasa.gov/space/>)

References: T. E. Eastman, S. A. Boardsen, S.-H. Chen, S. F. Fung, and R. L. Kessel, Configuration of high-latitude and high-altitude boundary layers, J. Geophys. Res., 105, 23221-23228, Oct. 1, 2000.

S. A. Boardsen, T. E. Eastman, T. Soterelis, and J. L. Green, An empirical model of the high-latitude magnetopause, J. Geophys. Res., 105, 23193-23220, Oct. 1, 2000.